

Remarks

This Amendment is in response to the Office Action dated **January 15, 2008**, wherein the Office: rejected claims 1 – 19 under 35 U.S.C. § 112, second paragraph, and rejected claims 1 – 19 under 35 U.S.C. § 103.

Applicants have concurrently filed herewith a Request for Continued Examination.

Applicants have amended claims 1 – 6 and 8 – 19, and canceled claim 7.

The following comments are presented in the same order and with headings and paragraph numbers corresponding to the rejections set forth in the Office Action.

Claim Rejections – 35 U.S.C. § 112

3. The Office rejected claims 1 – 19 under 35 U.S.C. § 112, second paragraph, alleging the same to be indefinite.

As presented above, Applicants have amended the claims. As such, Applicants respectfully assert that the rejections are overcome and request their withdrawal.

Claim Rejections—35 U.S.C. § 103

6. The Office rejected claim 1 – 19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,154,361 to Willoughby (hereafter “Willoughby”).

Willoughby fails to teach or suggest all the limitations of claim 1, namely “crushing and/or defibration of an agglomerate from pure or mixed plastics with water in a disc refiner”. Willoughby uses chips or flakes of plastic material and feeds them into a refiner. This is in contrast to the instant invention wherein agglomerated plastic material—which are compacted particles that are produced by chips or flakes of plastic material in an agglomeration process—is fed into a refiner.

The Office is incorrect in asserting that “agglomerate refers to a high degree of mixing which Willoughby clearly teaches.” Applicants direct the Office’s attention to page 2 of the instant specification which states, “In the processing, the mentioned agglomerating, the flakes or chips are heated by friction in a stirring machine such that they melt on.” [page 2, lines 9 – 10].

Thus, agglomeration, as is well known in the art, is not simply a high degree of mixing. If necessary, Applicants can provide publications which describe the agglomeration process in greater detail.

The distinction between what is taught in the instant invention and what Willoughby teaches is shown immediately below:

Fig. 1:

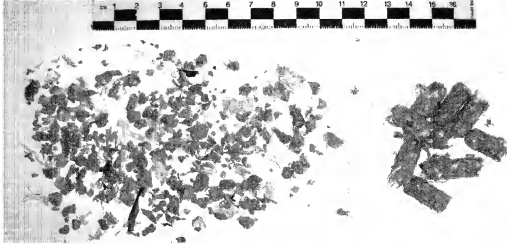


FIG. 1 above depicts the input of the instant invention—the compacted particles that result from the agglomeration process. The material on the left side of FIG. 1 depicts the pure or mixed plastic material. On the right side of FIG. 1 is the agglomerated plastic material *prior to being crushed or defibrated in a refiner*.

FIG. 1 is contrasted with what is taught in the Willoughby reference, shown immediately below in FIG. 2:

Fig. 2:

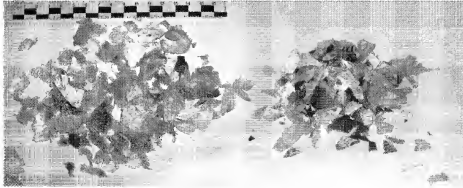


FIG. 2 above depicts the input of Willoughby. The material on the left side of FIG. 2 depicts the pure or mixed plastic material. On the right side of FIG. 2 is the comminuted plastic material *after being crushed in the refiner*.

Unlike Willoughby, Applicants recognized that the grinding or defibrating in a refiner of agglomerated plastic material, rather than chips or flakes, lead to a relatively uniform particle size.

Furthermore, there is no teaching or suggestion in Willoughby of “mixing a first group of particles and/or fibres from plastic material with a second group of fibres and/or particles to form a mixed material, the size of the particles or fibres of the first group approximately corresponding to the size of the particles or fibres of the second group,” as recited in claim 1. Although the Office directs Applicants’ attention to col. 3, line 29 of Willoughby for support, Applicants note that there is no mention at that location that the particles of different groups of particles have the same particle size. At lines 28 – 29, Willoughby only states that “The plastic film along with the other waste material was comminuted to fine sized particles in a short time.” (Emphasis added). Willoughby is silent about different materials having the same particle size.

The Office further alleges that at col. 2, line 18 to col. 3, line 40, the “crushing and/or defibration of an agglomerate from pure or mixed plastics with water in a disc refiner,” as recited in claim 1. It appears that the Office is asserting that agglomerate means only chips or flakes which are comminuted in a refiner. However, this is not correct, as one of ordinary skill in the art would understand that an agglomeration process uses chips or flakes to produce *compacted* particles. This is shown in detail in the figures presented above. Willoughby fails to teach or suggest this intervening step of producing the compacted particles prior to comminution in a refiner. As stated above, only the comminution in a refiner can lead to sufficiently granular material of small grain size if agglomerated plastic material.

Based on the foregoing, Applicants assert that claim 1 is non-obvious over Willoughby.

Claims 2 – 6 and 8 – 19 depend from independent claim 1. As such, claims 2 – 6 and 8 – 19 are also non-obvious over Willoughby at least for the reasons present above. Applicants respectfully request that claims 1 – 6 and 8 – 19 be allowed.

Conclusion

In light of the arguments presented above, Applicants assert that the application is in condition for allowance. Favorable consideration and early action to that effect are solicited earnestly.

Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact the Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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